Appendix 3.8-A
Water Bodies Crossed by
Project Alternatives

**Table 3.8-A**Water Bodies Crossed by Fresno to Bakersfield Section Alternatives

Water Body <sup>a</sup>	Type <sup>b</sup>	Alternative(s)	Approximate Crossing Width <sup>c</sup> (feet)	Crossing Method <sup>d</sup>
Fresno Colony Canal	С	BNSF Alternative	50	Piped conveyance (realigned)
North Central Canal	С	BNSF Alternative	50	Box culvert
Central Canal	С	BNSF Alternative	100	Culvert
American Colony Canal	С	Fresno Works–Fresno HMF	<50	Culvert or avoidance
Washington Colony Canal	С	BNSF Alternative, Fresno Works–Fresno HMF	<50	Box culvert
North Brach of Washington Colony Canal	С	Fresno Works–Fresno HMF	<50	Culvert or avoidance
South Branch of Washington Colony Canal	С	Fresno Works–Fresno HMF	<50	Culvert or avoidance
North Branch Oleander Canal	С	BNSF Alternative, Fresno Works–Fresno HMF	<50	Piped conveyance (realigned)
Wristen Canal	С	BNSF Alternative	<50	Box culvert (realigned)
Harlan Stevens Ditch	С	BNSF Alternative	<50	Box culvert
Davis Ditch	С	BNSF Alternative	<50	Box culvert
Elkhorn Ditch	С	BNSF Alternative	<50	Box culvert (realigned)
Crosscut Waste	С	BNSF Alternative	<50	Box culvert (realigned)
Cole Slough	I	BNSF Alternative	345	Steel truss structure
Dutch John Cut	I	BNSF Alternative	700	Steel truss structures
Liberty Ditch	С	Hanford West Bypass alternatives	<50	Box culvert
Murphy Slough	С	Hanford West Bypass alternatives	110	Aerial structure
"A" Canal	С	Hanford West Bypass alternatives	<50	Aerial structure (realigned)
Grant Canal	С	Hanford West Bypass alternatives	<50	Aerial structure

**Table 3.8-A**Water Bodies Crossed by Fresno to Bakersfield Section Alternatives

Water Body <sup>a</sup>	Type <sup>b</sup>	Alternative(s)	Approximate Crossing Width <sup>c</sup> (feet)	Crossing Method <sup>d</sup>
Kings River	I	BNSF Alternative, Hanford West Bypass alternatives	230 to 640	Aerial structure or steel truss structure
Riverside Ditch	С	BNSF Alternative, Hanford West Bypass alternatives	<50 to 75	Box culvert
Peoples Ditch	С	BNSF Alternative	<50	Box culvert
East Branch of Peoples Ditch	С	BNSF Alternative	125	Box culvert (realigned)
Settlers Ditch	С	BNSF Alternative, Kings County–Hanford HMF site	<50	Aerial structure, culvert, or avoidance (realigned)
Hardwick Ditch	С	Hanford West Bypass alternatives	<50	Box culvert
Bakker Ditch	С	Hanford West Bypass alternatives	<50	Box culvert
Last Chance Ditch (West Main)	С	Hanford West Bypass alternatives	75	Box culvert (realigned)
Blowers Ditch	С	Hanford West Bypass alternatives	<50	Box culvert
Last Chance Ditch	С	Hanford West Bypass alternatives (road improvements)	<50	Box culvert
Mussel Slough	I	Hanford West Bypass alternatives	<50	Box culvert
Lone Oak Canal	С	Hanford West Bypass alternatives (road improvements)	<50	Box culvert or bridge
Peoples Ditch	С	Hanford West Bypass alternatives (road improvements and alignment crossing)	<50	Box culvert (realigned)
New Deal Canal/Peoples Ditch	С	Hanford West Bypass alternatives	75	Box culvert (realigned)
Lakeside Ditch	С	BNSF Alternative, Hanford West Bypass alternatives	<50	Box culvert (realigned)

**Table 3.8-A**Water Bodies Crossed by Fresno to Bakersfield Section Alternatives

Water Body <sup>a</sup>	Type <sup>b</sup>	Alternative(s)	Approximate Crossing Width <sup>c</sup> (feet)	Crossing Method <sup>d</sup>
Melga Canal	С	BNSF Alternative, Hanford West Bypass alternatives	110 or 75	box culvert (realigned)
Canal near Guernsey Slough	С	Hanford West Bypass alternatives	<50	Box culvert
Arm of Guernsey Slough	I	BNSF Alternative	270	Culvert
East Branch Lakeside Ditch	С	BNSF Alternative, Hanford West Bypass alternatives	<50	Box culvert
Cross Creek	I	BNSF Alternative, Hanford West Bypass alternatives	285 to 320	Steel truss structure
West Branch Lakeland Canal	С	BNSF Alternative, Corcoran Elevated, Corcoran Bypass	50	Aerial structure and/or box culvert
North Corcoran Ditch	С	Corcoran Elevated	<50	Box culvert (realigned)
Sweet Canal	С	BNSF Alternative, Corcoran Elevated, Corcoran Bypass	60 to 120	Bridge (realigned)
AT and SF Ax Canal	С	Corcoran Bypass	<50	Box culvert
Tule River	I	BNSF Alternative, Corcoran Elevated, Corcoran Bypass	240	Bridge or aerial structure
Taylor Canal	С	BNSF Alternative	<50	Box culvert (realigned)
Lakeland Canal/Homeland Canal	С	BNSF Alternative	<50	Box culvert and/or aerial structure (realigned)
Deer Creek	I	BNSF Alternative, Allensworth Bypass	90	Aerial structure
County Line Creek North	I	BNSF Alternative	100	Bridge
County Line Creek South	I	BNSF Alternative	100	Bridge
Poso Creek	I	BNSF Alternative, Allensworth Bypass, and road crossing	150 to 280	Bridge or aerial structure
Arvin Edison Canal	С	BNSF Alternative	<50	Aerial structure

**Table 3.8-A**Water Bodies Crossed by Fresno to Bakersfield Section Alternatives

Water Body <sup>a</sup>	Type <sup>b</sup>	Alternative(s)	Approximate Crossing Width <sup>c</sup> (feet)	Crossing Method <sup>d</sup>
Friant-Kern Canal	С	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	50	Aerial structure (realigned)
Cross Valley Canal	С	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	<50 to 75	Aerial structure (realigned)
Kern River <sup>e</sup>	Р	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	540 to 720	Aerial structure and steel truss structure
Carrier Canal	С	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	80	Aerial structure (realigned)
Stine Canal	С	Bakersfield South	60	Aerial structure (realigned)
Kern Island Canal	С	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	60	Aerial structure
East Side Canal	С	BNSF Alternative, Bakersfield South, Bakersfield Hybrid	<50	Aerial structure and box culvert (realigned)

## Notes:

HST = high-speed train

<sup>&</sup>lt;sup>a</sup> Features identified from review of U.S. Geological Survey topographic maps and aerial photographs. Unnamed irrigation canals and distribution pipelines are also crossed by the alternative alignments; these features are not listed in this table.

<sup>&</sup>lt;sup>b</sup> Type: B = drainage or recharge basin, C = irrigation canal, I = intermittent, P = perennial.

<sup>&</sup>lt;sup>c</sup> Crossing widths subject to change once HST alternative alignments are finalized.

<sup>&</sup>lt;sup>d</sup> Based on 15% Conceptual Design. Where water bodies are crossed on fill (earthworks), culverts have been assumed to be the crossing method. Crossing method is subject to change as design progresses.

<sup>&</sup>lt;sup>e</sup> HST alternatives do not cross perpendicularly to the Kern River; therefore, approximate crossing width is greater than the perpendicular width of the Kern River.